



CARBON DIOXIDE

UN 1013

UN 2187

UN 1845



Shipping Name: UN 1013 Carbon dioxide
UN 2187 Carbon dioxide, refrigerated liquid
UN 1845 Carbon dioxide, solid or Dry ice

Other Names: Carbonic acid anhydride Carbonic anhydride
Carbonic acid gas Dry ice

Hazards:

- Replaces oxygen in enclosed areas leading to possible asphyxiation
- Odor is not a reliable indicator of the presence of toxic amounts of gas
- Container may BLEVE when exposed to fire
- Contact with solid may cause frostbite
- Gas is heavier than air and will collect and stay in low areas

Awareness and Operational Level Training Response:

- Stay upwind and uphill
- Determine the extent of the problem
- Isolate the area of release or fire and deny entry
- For container exposed to fire evacuate the area in all directions because of the risk of BLEVE
- Notify local health and fire officials and pollution control agencies

Description:

- Colorless gas, white solid (dry ice) or cryogenic liquid
- Odorless
- Solid sinks in water, liquid floats on the surface of water; is insoluble in water
- Nonflammable
- Gas is heavier than air and will collect and stay in low areas
- Solid or liquid form will produce large amounts of vapor

Operational Level Training Response:

RELEASE, NO FIRE:

- Stop the release if it can be done safely from a distance
- Ventilate confined area if it can be done without placing personnel at risk

FIRE:

- Material does not burn; fight surrounding fire with an agent appropriate for the burning material
- DO NOT APPLY WATER to cryogenic liquid containers; if cryogenic liquid containers are exposed to direct flame or elevated temperatures for prolonged times, withdraw immediately to a secure location
- Cool exposed noncryogenic containers with large quantities of water from unattended equipment or remove intact containers if it can be done safely
- If cylinders are exposed to excessive heat from fire or flame contact, withdraw immediately to a secure location

First Aid:

- Provide Basic Life Support/CPR as needed
- Decontaminate the victim as follows:
 - ♦ Inhalation - remove the victim to fresh air and give oxygen if available
- Seek medical attention
- Frostbite - warm injured area in very warm water

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